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ढलाइयों मे प्रयुक्त टैम्पर्स और रैमर — विशिष्टि  
( पहला पुनरीक्षण )

**Tampers and Rammers for Use in  
Foundries — Specification**  
( First Revision )

ICS 77.180

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## FOREWORD

This Indian Standard (First Revision) was adopted by the Bureau of Indian Standards, after the draft finalized by the Foundry Steel Casting Sectional Committee had been approved by the Metallurgical Engineering Division Council.

The standard was originally published in 1971. This revision has been brought out to bring the standard in the latest style and format of the Indian Standards. In addition the following changes have been made:

- a) References to standards have been updated; and
- b) A clause on BIS certification marking has been added.

The composition of the Committee responsible for the formulation of this standard is given in Annex A.

For the purpose of deciding whether a particular requirement of this standard is complied with, the final value, observed or calculated, expressing the result of a test or analysis shall be rounded off in accordance with IS 2 : 2022 'Rules for rounding off numerical values (*second revision*)'. The number of significant places retained in the rounded off value should be the same as that of the specified value in this standard.

*Indian Standard***TAMPERS AND RAMMERS FOR USE IN FOUNDRIES —  
SPECIFICATION***( First Revision )***1 SCOPE**

This standard covers requirements for tampers, rammers and shoes for pneumatic rammers for use in foundries.

**2 REFERENCES**

The standards given below contain provisions which through reference in this text, constitute provision of this standard. At the time of publication, the editions indicated were valid. All standards are subject to revision and parties to agreements based on this standard are encouraged to investigate the possibility of applying the most recent edition of these standards:

<i>IS No.</i>	<i>Title</i>
IS 210 : 2009	Grey iron castings — Specification ( <i>fifth revision</i> )
IS 1337 : 1993	Electroplated coatings of hard chromium for engineering purposes — Specification ( <i>third revision</i> )
IS 1365 : 2022/ ISO 2009 : 2011	Slotted countersunk flat head screws — product grade A ( <i>fifth revision</i> )
IS 1387 : 1993	General requirements for the supply of metallurgical materials ( <i>second revision</i> )
IS 2102	General tolerances:
(Part 1) : 1993/ ISO 2768-1 : 1989	Tolerances for linear and angular dimensions without individual tolerance indications ( <i>third revision</i> )
(Part 2) : 1993/ ISO 2768-2 : 1989	Geometrical tolerances for features without individual tolerance indications

**3 SUPPLY OF MATERIAL**

General requirements relating to supply of the materials to this specification shall be as laid down in IS 1387.

**4 APPLICATION**

Tampers and rammers are used for preparing mould

and cones. It exerts an impact on the soil surface to make it evenly flat and compact.

**5 DIMENSIONS**

Dimensions and weights of the tools shall be as specified in Table 1 to Table 5.

**6 MATERIAL****6.1 Handle**

- All tools except in Table 5 — Mild steel or cast iron with threaded ends; and
- For tools in Table 5 — Any seasoned hard wood.

**6.2 Tamper and Rammer Heads — mild steel****6.3 Combined Tamper and Rammer — mild steel****6.4 Shoe for Rubber Tipped Pneumatic Rammer — mild steel****6.5 V-Shoe and Disc Shoe — grey cast iron Grade FG 150 in accordance to IS 210****6.6 Rubber Tip of Pneumatic Rammer**

The rubber tip of pneumatic rammer shall be mutually agreed to between the manufacturer and the purchaser.

**7 TOLERANCES**

Tolerance of coarse class in accordance with IS 2102 (Part 1) and 2102 (Part 2).

**8 COATING**

Steel and iron components shall be coated with protective paint in accordance to IS 1337. Wooden components shall be coated with suitable varnish.

**9 PACKING**

The tools shall be packed in wooden boxes weighing not more than 50 kg overall or mutually agreed between the manufacture and the purchaser.

**10 FITTING**

The handles of tools in Table 1, Table 2 and Table 3 shall be welded to the heads. Alternatively handles in Table 1, Table 2 and Table 3 may be fixed by screwing in the rammer heads.

**10.1** For tools in Table 5, the handle shall be secured to the head by countersunk screws conforming to M4 of IS 1365 in the black condition.

**10.2** Any other screws used for other tools shall have the same nominal size as mentioned in the drawing. They shall conform to IS 1365 in the black condition.

## **11 MARKING**

**11.1** The materials shall be marked with the following:

- a) Indication of the source of manufacture;

- b) Grade designation;
- c) Batch No./lot No.;
- d) Quantity; and
- e) Date of manufacture.

## **11.2 BIS Certification Marking**

The products(s) conforming to the requirements of this standard may be certified as per the conformity assessment schemes under the provision of the *Bureau of Indian Standards Act, 2016* and the Rules and Regulations framed thereunder, and the product may be marked with the Standard Mark.

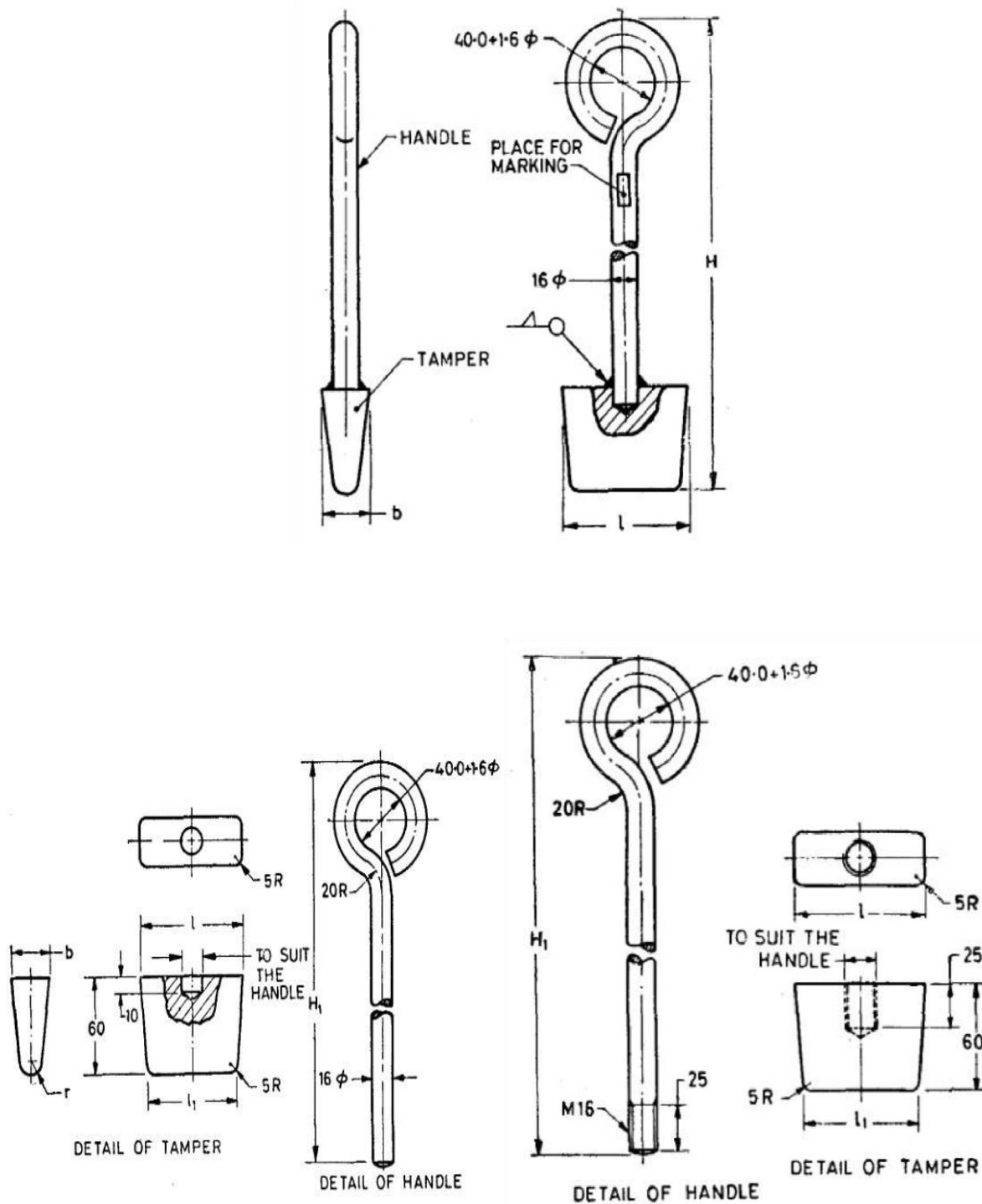


FIG. 1 DIMENSIONS AND APPROXIMATE WEIGHTS OF HAND TAMPERS

Designation of a hand tamper of height 1 250 mm: Hand tamper 1 250 (IS 6482)

Designation of a tamper of length  $\times$  breadth =  $80 \times 30$ : Tamper  $80 \times 30$  (IS 6482)

Designation of handle of length 1 200 mm: Handle 1 200 (IS 6482)

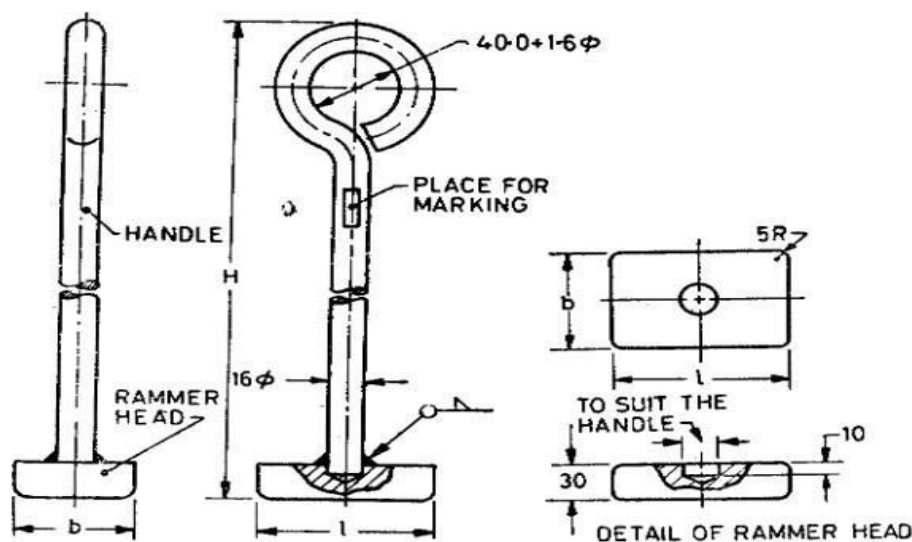
**Table 1 Dimensions and Approximate Weights of Hand Tampers**

(Clauses 5 and 10)

All dimensions in millimetres.

Sl No.	H	l	b	l1	r	H1	Length of Handle when Straightened Out	Weight of Tamper kg	Weight of Handle kg	Weight Head kg
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)
i)	1 250	80	30	70	8	1 200	1 345	3.0	2.10	0.9
ii)	1 600	100	40	90	10	1 550	1 675	4.0	2.65	1.35

NOTE — Handle may also be screwed into the tamper instead of welding.

**FIG. 2 DIMENSIONS AND APPROXIMATE WEIGHTS OF RECTANGULAR HAND RAMMERS**

(All dimensions in millimetres)

Designation of rectangular hand rammer of height 1 220 mm and length × breadth — 100 × 60:

Rectangular rammer 1 250 (IS 6482)

Designation of rammer head of length × breadth = 100 × 60: Rammer 100 × 60 (IS 6482)

**Table 2 Dimensions and Approximate Weights of Rectangular Hand Rammers**

(Clauses 5 and 10)

All dimensions in millimetres.

SINo.	H	l	b	Weight of Rammer kg	Weight of Head kg
(1)	(2)	(3)	(4)	(5)	(6)
i)	1 220	100	60	3.5	1.38
ii)	1 370	120	80	4.86	2.2

NOTES  
1 For detail of handle, (see Table 1).  
2 Handle may also be screwed into the rammer head.

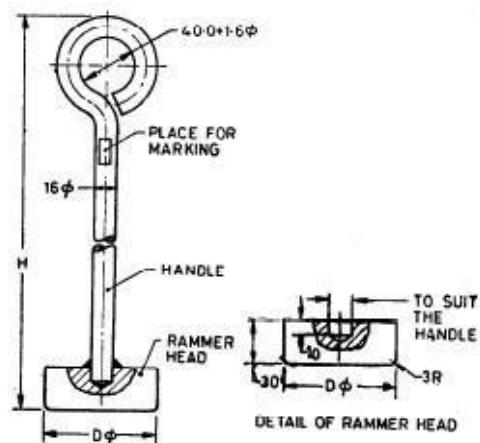


FIG. 3 DIMENSIONS AND WEIGHTS FOR ROUND HAND RAMMER

(All dimensions in millimetres)

Designation of a round hand rammer of height 1 220 mm: Round rammer 1 220 (IS 6482)

Designation of a round rammer head of diameter 80 mm: Rammer D80 (IS 6482)

**Table 3 Dimensions and Weights for Round Hand Rammer**

(Clauses 5 and 10)

All dimensions in millimetres.

Sl No.	H	D	Weight of Rammer kg	Weight of Hand kg
(1)	(2)	(3)	(4)	(5)
i)	1 220	80	3.27	1.17
ii)	1 570	100	4.46	1.81
NOTES				
1 For detail of handle, (see Table 1).				
2 Handle may also be screwed into the rammer head.				

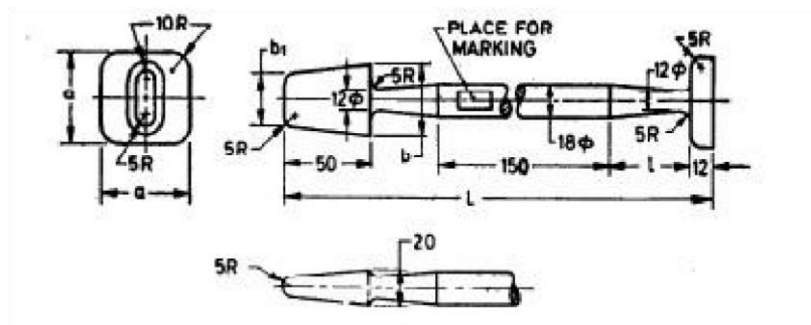


FIG. 4 DIMENSIONS AND WEIGHTS FOR COMBINED TAMPER AND RAMMER

(All dimensions in millimetres)

Designation of a combined tamper and rammer of length 300 mm, rammer area  $50 \times 50$ :  
 Tamper rammer 300 (IS 6482)

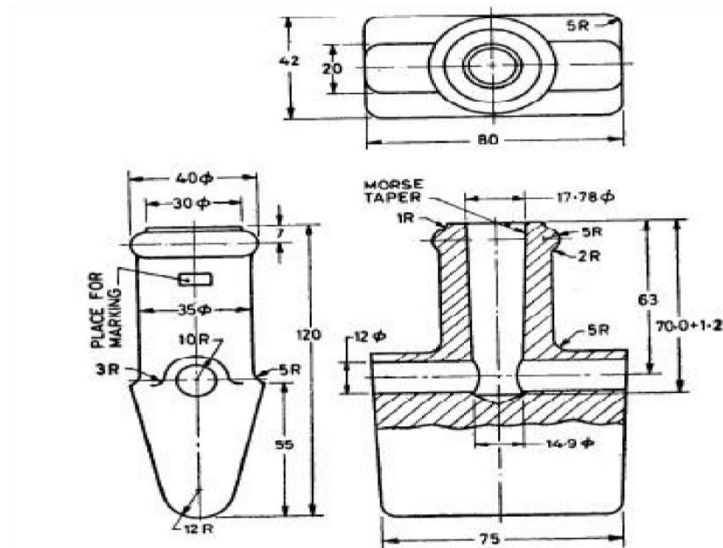
**Table 4 Dimensions and Weights for Combined Tamper and Rammer**

(Clause 5)

All dimensions in millimetres.

Sl No.	L	a	b	b1	I	Weight of the Tool kg
(1)	(2)	(3)	(4)	(5)	(6)	(7)
i)	300	50	40	30	60	0.80
ii)	360	80	60	50	110	1.32





V-Shoe for Pneumatic Rammer Weight 1.4 kg

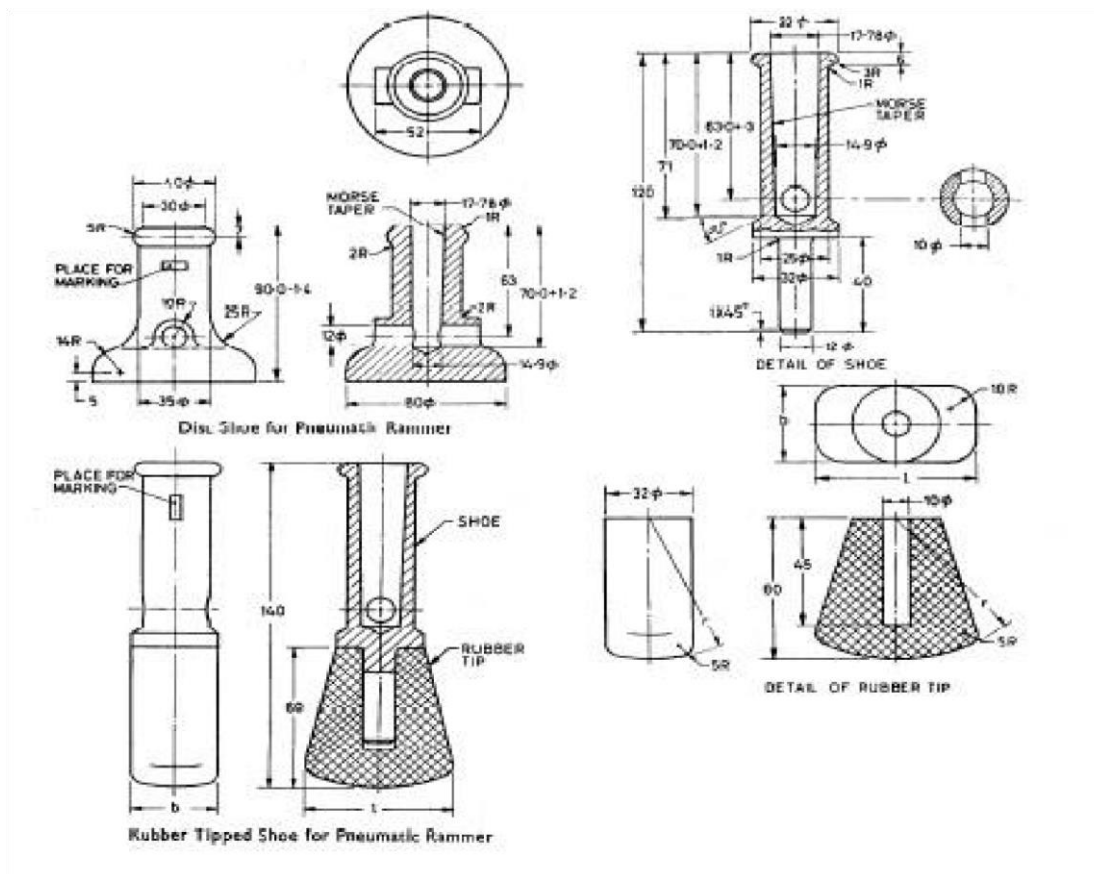


FIG. 5 DIFFERENT TYPES OF SHOES FOR PNEUMATIC RAMMERS

All dimensions in millimetres.

Designation of rubber tip of area at the bottom = 60 × 32: Rubber tip 60 × 32 (IS 6482)

**Table 5 Different Types of Shoes for Pneumatic Rammers***(Clauses 5, 6.1 and 10.1)*

All dimensions in millimetres.

For dimensions see the respective figures.

<b>Sl No.</b>	<b>l</b>	<b>b</b>	<b>r</b>	<b>Weight</b> kg (5)
(1)	(2)	(3)	(4)	
i)	60	32	60	0.07
ii)	80	40	80	0.15
iii)	100	60	100	0.22

**ANNEX A***(Foreword)***COMMITTEE COMPOSITION**

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### Amendments Issued Since Publication

Amend No.	Date of Issue	Text Affected

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